

Education Development Center, Inc.
Goal Area: Improving Teacher Quality/Science

Summary of Organizational Activities: EDC manages several large-scale professional development projects for teachers of science preK-12, and for administrators at the school and district levels.

Purpose: The overriding goal of all of EDC's professional development projects in science is to help teachers and administrators deepen their content knowledge. Science teaching at all levels requires profound understanding of fundamental science concepts and relationships, and teachers at all stages of their careers need time and support to build this knowledge and skill.

Activities and Results:

- *The EDC K-12 Science Curriculum Dissemination Center* is part of a nationwide effort to introduce school districts to high quality, exemplary science instructional materials. Through 11 regional hubs across the country, the center offers seminars, technical assistance, and a wide range of resources to an estimated 375 to 500 previously underserved communities, primarily in rural and geographically isolated school districts.
- *Foundation Science: A Comprehensive 6-10 Curriculum* addresses the need for a science education program that builds on demonstrated successes in the elementary grades and creates opportunities for and interest in advanced science study in high school. Key features include assessment-driven design, conceptual sequencing based on students' cognitive abilities, substantial use of emerging technology, and strong professional development for teachers.
- Through its national network of school districts and via its web-site, EDC will disseminate a *Science Instructional Technology Resource Guide* for grades 9 through 12. The guide enables teachers to maximize the growing and considerable investment this country is making in technology.
- *Middle Grades Curriculum Guide Series:* EDC completed a set of guides to assist middle grades educators in identifying curriculum materials that can help young adolescents achieve to high standards in language arts, mathematics, and science. The guides consider curriculum content and pedagogy, how the curriculum engages all students in learning and meets their individual developmental needs, and the requirements for successful implementation.
- *Middle Grades Science Mentoring Program:* This project is establishing a model program for developing and supporting middle grades science mentor-teachers. The project works closely with experienced science teachers to improve their skills, knowledge, and confidence so they can work effectively with novice science teachers from 10 to 12 demographically diverse school districts.
- *Teacher Leadership for Systemic Reform:* Teacher leadership is often used as a strategy for helping large numbers of teachers change their classroom practice. This research project investigates models of teacher leadership in mathematics and science used by six Urban Systemic Initiative sites across the country.
- *Tool Kit for Early Childhood Science Education:* This comprehensive set of materials supports the improvement of science teaching and learning in early childhood centers and programs across the country. The materials, which include standards for early childhood science education, guide and support teachers, staff developers, and administrators in implementing high-quality science education for young children.
- *City Technology: Learning from Everyday Stuff* creates field-tested, integrated, design and technology curricular materials for elementary-level teachers. Intended for grades four through six, with extensions to grades one through eight, this unique national effort helps teachers use children's immediate urban environments, including everyday technology, as sources for inquiry-based science in the classroom.
- *Consultation to School Districts:* CSE staff provides customized consultation and technical assistance on science education issues such as curriculum selection, instructional strategies, professional development, and systemic change to school districts nationwide.

Plans for the next 12 months: All of the activities described above are ongoing. See www.edc.org for details.